Topics in Geriatrics: Strategies To Measure fall risk in The Geriatric Population: The STEADI

Falls are the leading cause of injuries and deaths in individuals over 65 years old with 28.7% of those individuals admitting to having at least one fall a year1. Fifty percent of individuals over 80 years old fall at least once a year. A study performed in 2011 revealed the main reasons why physicians don’t perform fall screenings. These reasons included not seeing falls as a primary issue for a visit, not enough time during visits, and not having adequate educational materials2 Measuring fall risk is essential to educate older individuals on what aspects in their life they can improve on in order to avoid injury and death from falls.

Objectives:

The objectives of this page are to:

1. Know the definition of a fall.

2. Know what aspects contribute to fall risk.

3. Know how to measure fall risk.

4. Know what strategies can be incorporated to decrease fall risk.

Information About Fall Risk:

A fall is defined as unintentionally coming to rest from a higher surface to a lower surface not caused by an external force or medical condition3. According to the CDC, older individuals should first focus on modifiable risk factors to avoid fall risk. These risk factors include lower extremity weakness, gait and balance difficulties, postural dizziness, poor vision, medications, foot/shoe problems, and home hazards1. In one year, there is a 32% chance of falling if two risk factors are present, a 60% increase for three risk factors, and 78% increase for four or more risk factors present4.

The STEADI (Stop Elderly Accidents, Deaths, and Injuries) tool kit assess fall risk by providing an algorithm and a Stay Independent self-risk assessment brochure. Answers to questions on these assessments will help detect key fall risk factors and provide treatment ideas for each. The STEADI tool kit assess gait, strength, and balance by providing directions for the Timed Up and Go test, the 30-sec chair stand, and the 4-stage balance test. The kit also provides directions for measuring for orthostatic hypotension. The results of all measures are recorded on a single form to be included in the patient’s chart or scanned into an electronic medical record. Lastly, the kit contains referral forms for physicians as well as brochures, home safety checklists, and exercises designed for patient use5.

Suggestions for use of the examination measure:

Preventing falls is a multifactorial approach. Older individuals must be screened for any previous fall history, polypharmacy, gait and balance abnormalities, strength loss, and nutrition deficits. Physicians can be provided with screening guides such as the STEADI along with referral resources in order to aide in fall risk prevention for the elderly2. It would also be beneficial to educate health care providers about incentives provided by Medicare and Medicaid services in order to encourage use of fall prevention measures6.

Pros:

* The STEADI can be used as a screen, assessment, and intervention tool.
* Includes educational handouts and brochures.
* It is a multifactorial approach for fall risk assessment.
* Recurrent falls have been shown to decrease with the use of the STEADI from 1.5% to 0.6%7.

Cons:

* Requires some training for use.
* Takes approximately 15-20 minutes to administer.

Additional Resources:

1. <https://www.cdc.gov/steadi/index.html>
2. <https://www.youtube.com/watch?v=MPDiN0TNLt4>
3. <https://www.ncoa.org/wp-content/uploads/STEADI-Webinar-Slidedeck.pdf>
4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707964/>
5. https://www.cdc.gov/steadi/pdf/algorithm\_2015-04-a.pdf

References:

1. <https://www.cdc.gov/steadi/pdf/risk_factors_for_falls-a.pdf>
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3. Tinetti ME, Williams CS. Falls, injuries due to falls, and the risk of admission to a nursing home. *N Engl J Med*. 1997;337:1279-1248.
4. Tinetti ME, Speechley M, Ginter SF. Risk factors for falls among elderly persons living in the community. N Engl J Med 1988;319:1701-1707
5. Stevens JA, Phelan EA. Development of STEADI: a fall prevention resource for health care providers. Health Promot Pract 2013;14:706–14.
6. Bergen G, Stevens MR, Burns ER. Falls and Fall Injuries Among Adults Aged ≥65 Years — United States, 2014. MMWR Morb Mortal Wkly Rep 2016;65:993–998. DOI: <http://dx.doi.org/10.15585/mmwr.mm6537a2>.
7. https://www.cdc.gov/steadi/stories/hospital.html